Minerals Staff Meeting
April 14, 1994
Outstanding Reclamation Tasks
Mi Vida Mine M/037/028

From the last Division site inspection (August 26, 1993) Holland Shepherd listed the following reclamation tasks remaining:

1) stabilize the county road

2) improve hydrology associated with the road

3) keep water off the waste dumps

4) backfill & stabilize pre-law portals & sinkholes (if allowable)

5) control public access into the McCormick portal

6) decide on location, number & content of historic signs & install them

7) rip and seed the truck loading pad

8) reseed portions of the site as needed

The account balance as of August 28, 1992, was $20,452.27. A draft reclamation estimate was prepared on 9/22/93 by the Division. The draft estimate included four different options for controlling access into the McCormick portal.

Other issues at this site are: a) Is the public being exposed to harmful radiation or radon by visiting the site? b) What are the acceptable (safe) exposure radiation/radon limits for circumstances such as this? c) What steps should the Division take to remove possible exposure liability? d) Should a historic-type sign be posted along the main highway directing the public to the site? e) Can the location of the original Mi Vida shaft be reestablished?

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URANIUM & CHARLIE STEEN'S MI VIDA

Forward

The search for uranium in the United States is the most intensive ever made for any metal during our history. The number of prospectors and miners involved is difficult to estimate, but some measure of the size of the effort is indicated by the fact that more than 500 geologists are employed by government and industry in the work - a number comparable to or larger than the total number of geologists engaged in the study of all other minerals together except oil.[1]

Of greater long term importance has been the discovery, mainly by private prospectors, of important deposits, some containing a million tons or more of ore, in new districts or other areas previously not known to contain minable ore. The largest single producer on the Plateau now is the Mi Vida mine near Moab, Utah. The deposit there was completely unknown until late in 1952 - in fact, the Chinle formation in which it occurs was not even known to contain ore in that area.[2]

CHARLIE STEEN & MI VIDA[3]

Charles Augustus Steen graduated in 1943 with a B.A. in geology from the Texas School of Mines and Metallurgy in El Paso. He worked for Standard Oil of Indiana, but didn't enjoy submitting reports he considered unnecessary. Unfortunately his boss thought otherwise and when Charlie shot off his mouth he was fired for "rebellion against authority", and was then blacklisted as a geologist throughout the entire oil industry. In December 1949 he read an article entitled Can Uranium Mining Pay, and at 28 years of age he headed for the Colorado Plateau.

At that time uranium was the most critical material the United States had ever known. It fueled atomic weapons, promised environmentally-clean electrical power, gas-free operation of cars, planes and locomotives, preservation of meat, distillation of sea water, and America needed a domestic supply of uranium to keep a nuclear edge in the cold war with Russia. Uncle Sam was desperate for the mineral and willing to pay for it. By law, the federal government was the only buyer, and to encourage prospectors the Atomic Energy Commission (AEC) established minimum prices for the ore, guaranteeing rates for 10 years. An additional incentive was a $10,000 bonus for each separate discovery and production of high-grade uranium from new domestic deposits and a man could stake a uranium claim on public land for $1.00.

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[1] Search for Uranium in the United States, Dept. of the Interior, 1955

[2] Search for Uranium in the United States, page 32.

[3] Ringholz, Raye. Uranium Frenzy - Boom and Bust on the Colorado Plateau, c.1989

Most uranium hunters knew little and cared less about geology. They simply bought geiger counters and followed the AEC's instructions and maps. Steen couldn't afford a geiger counter, didn't want one, and he refused to follow blindly after the others. In fact, he concentrated on an area that government geologists had investigated and labeled worthless. He insisted that uranium could collect deep underground like reservoirs of oil and then leech upward into the Morrison[4] formation, which earned him continual disdain as "that nutty Texan" and "Steen's folly."

In May 1948 three prospectors (Hayes, Bentley and Brewer) had staked 12 claims in the Big Indian Wash area and named it the Big Buck, but only small deposits of uranium had ever been found. In 1951 Steen obtained permission from Hayes to check the terrain behind the Big Buck outcroppings. He gathered 12 rocks for cornerstones and some stakes to mark boundaries, and staked out a dozen 600 x 1,500-feet rectangles. He paid $12 to file claims with the county registrar and gave his claims Spanish names: Mujer Sin Verguenza, Mi Corazon, Besame Muco, Pisco, Fundadoro, Te Quiero, Linda Mujer, Mi Amorcita, Ann, Bacardi, Mi Alma, and Mi Vida ("My Life").

Family illness, broken drill bits, and money problems forced him to move to Tucson in search of funds. For 1 year he worked as a carpenter and tortured himself with newspaper articles and stories in mining magazines ("In November 1950, 145 claims were staked; February 1951 tallied 600"), and dreams of his own stake. In April 1952, Steen left Tucson. He started drilling on July 3, 1952. On July 6th the bore reached 72 feet. The cores turned dirty grey, like coal or an ugly black rock. Steen continued eating into the formation and pulled out 14 feet of the stuff. It was foreign to him. He tossed it on the ground with the other rock lengths and continued drilling. His calculations indicated paydirt at about 250 feet. At 197 feet the old drill started groaning and smoking. Then it happened. The stem spun free. There was a loud, whirring noise and he dove to switch off the engine. He knew by the sound that the bit was gone, fallen to the bottom of the hole. It was his last one. He had no way to retrieve it and no more money. Steen broke camp and on July 18th his old jeep rattled up to Buddy Cowger's service station in Cisco. Cowger was sitting in his wheelchair near the gas pump. An accident with a cyanide gun had left him paralyzed from the waist down, but his handicap didn't keep him from getting in on the uranium fever. At every opportunity he dragged himself in and out of his jeep and crawled around on his hands and knees to scout promising terrain. A brand new Lucky Strike Geiger counter was his pride and joy. Uranium talk was his passion. "Any luck?" he asked Charles. "Lost my last bit," Charlie said. Cowger, in an effort to cheer Steen up, said "I've been testing some cores the kids brought in, and they don't look too bad." He put one under the counter and the needle registered slightly. Charlie reached into the jeep and pulled out his ugly black rock. "Hell, I've got better stuff than that," he joked. "Well, put her under," Cowger

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[4] 160 million years ago the mountains eroded to the valley floor; climate became tropical and jungles thickened with bamboo, palms and ferns; dinosaurs roamed - then mysteriously they began to disappear. Sluggish rivers filled with fallen trees and bones of dionsaurs. The debris petrified into red, brown, green and slate-colored mud. This prehistoric cemetery composed the Salt Wash member of the Morrison formation where most of the Colorado Plateau's uranium had been found.

laughed. Charlie jabbed the sample under the counter. The instrument swung clear off the scale. Charlie hadn't recognized the unimpressive grey stone as pitchblende.[5]

Even after this massive discovery people accused Steen of salting the hole with pitchblende. They refused to believe that he had struck in the Chinle[6], a formation virtually unknown as a uranium producer. The AEC even said the Big Indian region was barren. Steen, with no financial backing, found it impossible to begin working the Mi Vida. On October 4, 1952 he found the financial backing and legally formed the Utex Exploration Company[7]. Drilling began and as Thanksgiving approached the mine inched closer to the depth of his original discovery. Still no ore. Charlie knew the miners working for him considered it lunacy to sink a shaft without coring a grid. He prayed he would prove them wrong. December 1, 1952 marked his 31st birthday and work as usual. On that day the drills reached 68 feet and he got the birthday present of a lifetime. The hole bottomed into heavy, black ore measuring over 14 feet of primary pitchblende. A later radiometric assay indicated a staggering 0.34 to 5.0 percent of U_3O_8. Steen had the biggest strike in the history of the Colorado Plateau.

"I can remember that night," he recalled. "My mother and I went down to Moab. It was about 10 o'clock and I had a quart of whiskey. We went to a hotdog stand where the bus station used to be. We were the only ones there. The whole town was locked up. That was the night of the discovery of the shaft and that was the last time that Moab went to sleep at 10 o'clock for a long time."

URANIUM BOOM

The 'uranium boom' had captured America's imagination. It seemed anyone could become a "uraniumaire."

1. Texan Blanton Burford and his partners sliced into an eight-foot vein of high-grade uranium ore while they were bulldozing a road into their claims on Rattlesnake Mountain, near Moab.

2. On a Monday morning, after abandoning their equipment to knock off work for the weekend, a county road crew returned to the job and discovered over 200 claim stakes covering the area. Some crafty prospectors had figured that

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[5] pitchblende ... a brown to black mineral that consists of massive uraninite, has a distinctive luster, contains radium, and is the chief ore-mineral source of uranium.

[6] Massive petrified sand dunes are remnants of a desert created when mountains appeared and the region was cut off from coastal moisture. These deposits, approximately 195 million years old are called the Shinarump and Chinle formations.

[7] "The mines in Utah and I'm from Texas."

the machinery had been left there in preparation for drilling, and they wanted to get in on the action.

3. Pratt Seegmiller, an avid rock-hound and collector, lived on the outskirts of Marysvale. Five years previously he had collected some 50 pounds of a canary-yellow rock. When he heard the AEC was buying uranium he wracked his brain trying to remember where he had found it. All he could recall was that it was an outcropping at the base of a hill. Five months later it came to him and hiking to the spot he staked his claim to the Freedom and Prospector mines. He leased the property to the Vanadium Corporation of America and by 1952 the mine proved to be one of Utah's richest deposits. Seegmiller's royalties enabled him "to support my family in a style to which we were not accustomed."

When Charlie hit the 'big one' he asked his wife, Minnie Lee (M.L.), what she wanted. She opted for a washing machine to replace her scrub board. But Charlie bought her a diamond instead. And, since Moab didn't have a laundry or dry cleaner, he had their new and expensive wardrobe flown to Grand Junction and back for cleaning once a week.

In 1958 Steen ran and was elected to the Utah Senate. His campaign manager gave him some parting words of advice. He said, "There are two things you shouldn't do when you get to Salt Lake, one is that you shouldn't introduce a bill for liquor-by-the-drink (which Steen did), and you shouldn't introduce a bill for parimutuel horse racing (which Steen did)."

Steen rarely minced words and had to learn to control his temper. The one time he failed this was during the campaign for Senate and Steen was honored by the Ex-students' Association of the Texas Western College (formerly Texas College of Mines and Metallurgy) who had invited him to attend the annual Homecoming Banquet in November 1958 and present him with the Outstanding Student Award. The large crowd gave him a standing ovation and when it ended Steen stood and began his speech.

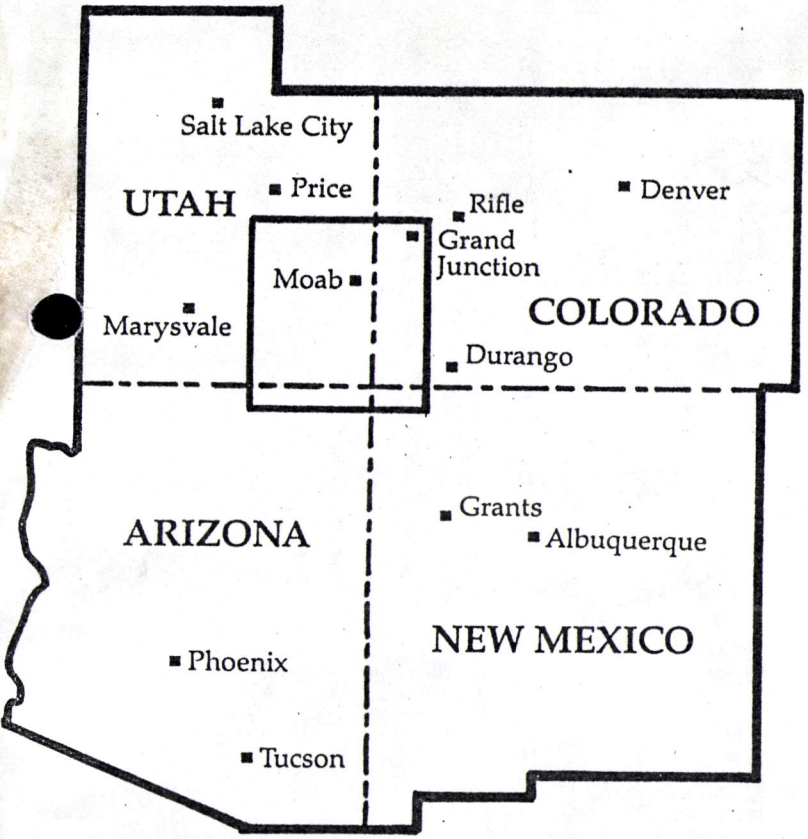
> "I know the proper way in which to accept this award. I am expected to say 'thank you' and sit down. However, inasmuch as I did not seek this award, and as Dean Thomas reminded me last night that I was the only son-of-a-bitch he knew who had made a career at being one, and was a success as a result, you need not expect the proper response." After an uncomfortable stirring in the room Steen began to berate the Chamber of Commerce. "In their desire to attract more students, a feat which would mean more money for the people they represent, they destroyed a brand name - Texas College of Mines - that was known the world over through the efforts of men who had dedicated their lives to building the school and their students who have achieved recognition in every country of the free world for their ability and proficiency in Mining and Engineering fields. A graduate of Texas College of Mines was able to obtain a job for which a graduate of a teachers' college would not be considered." Then, with no little disdain, Steen listed some of the courses currently in the college catalogue: Techniques; Methods and Materials of Instruction in Rhythm; Coaching Basketball or Football; Real Estate

Brokerage; Radio Listening as Aid to Elementary Teaching; Public Relations; Drama; Storage and Warehousing; Jewelry Construction; and Baton Twirling. Steen went on to suggest a few more 'worthwhile subjects', such as Beer Guzzling and Mexican Relations (how to go to Juarez and keep enough money to get back across the Bridge). With mounting bitterness he ended his speech stating, "This son-of-a-bitch previously mentioned at 39 years of age is a living legend of the Uranium Boom that he helped create, a boom that raised the U.S.A. from a 'have not' nation to a number one position in Uranium reserves of the world. Whether he dies a multi-millionaire or a broken-down, ragged-ass, prospecting tramp, his place in the mining history of our country is secure. History, if true, will show he graduated from the Texas College of Mines and I will accept this trophy but will replace the name that I do not recognize with Texas College of Mines." The audience sat in stunned silence.

From early 1953 until 1968, when the IRS seized his assets for back taxes, Steen spent close to 25 million dollars. Steen's financial troubles were the result of ill-fated business ventures and advice from 'well-meaning' friends. "Everybody kept advising me, 'Diversify, Charlie, diversify', Steen reported, "So I diversified. I got into things I couldn't hack. I got spread out so damn thin. Everything I touched went sour." Even with defeat and poverty staring him in the face Steen remained positive. In February 1970 he stated to the Salt Lake Tribune, "If there's something I've got out of this whole bankruptcy mess, it's that it's got me out into the field again where I belong." When asked what he would do differently if he had to do it over, Steen replied, "...life isn't like that. You can't go back and make one or two changes to get a neater, happier pattern. You've got to buy the whole package as it is: blemishes, sorrows, mistakes, and all. If you ask me on <u>that</u> basis, I'd say: no changes, no regrets. I'm glad I'm Charlie Steen and I'm glad about what's happened to me since I found Mi Vida in 1952."

<u>DEADLY DAUGHTERS</u>

Uranium - it brought the West recognition, power, and wealth. But, then almost 15 years after it's discovery it brought another kind of recognition - lung cancer. The Colorado Plateau was dotted with poorly ventilated mines. The uranium molecule is an active, complex unit containing thousands of lively electrons agitating inside of it. Uranium ore contains all of the members of the radioactive family, of which uranium is the parent. Mining uranium caused large concentrations of dust (or <u>radon</u>) to be released into the air. And as science would soon discover it was the decay products of radon .. the <u>radon daughters</u> .. that were deadly. When radon diffuses out from the rock or broken ore into open space, the radon gas then decays into other radioactive elements called daughters. These radon daughters are solid particles and some of them (the most deadly) are short lived.



COLORADO PLATEAU
During the Uranium Boom